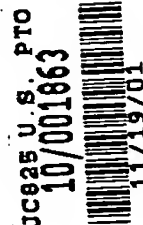


#5/I.D.S.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Attorney Docket No.: ISPH-0618
Inventors: Karras et al.
Serial No.: Not Yet Assigned
Filing Date: Herewith
Examiner: Not Yet Assigned
Group Art Unit: Not Yet Assigned
Title: Antisense Modulation of Toll-Like
Receptor 4 Expression

"Express Mail" Label No. EL722985093US
Date of Deposit November 19, 2001

I hereby certify that this paper is being deposited
with the United States Postal Service "Express Mail
Post Office to Addressee" service under 37 CFR 1.10
on the date indicated above and is addressed to the
Assistant Commissioner for Patents, Box PCT,
Washington, D.C. 20231.

By Jane Massey Licata
Typed Name: Jane Massey Licata, Reg. No. 32,257

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

(XX) In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified

application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, or before the mailing date of a first Office Action on the merits of the above-identified application, no additional fee is required.

() In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311, therefore:

() Certification in Accordance with §1.97(e) is set forth below; or

() The fee of \$180.00 as set forth in §1.17(p) is attached.

() In accordance with §1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311 but before the payment of the Issue Fee, therefore included are: Certification in Accordance with §1.97(e); Petition Requesting Consideration of the Information Disclosure Statement; and the fee of \$130.00 as set forth in §1.17(i)(1).

(XX) Copies of each of the references listed on the attached Form PTO-1449 (modified) are enclosed herewith.

() In accordance with §1.98(d), copies of some or all of the references listed on the attached Form PTO-1449 (modified)

are not enclosed herewith because they were previously submitted to the U.S. Patent and Trademark Office in prior application Serial No. _____, filed _____, for which a claim for priority under 35 U.S.C. §120 has been made in the instant application.

Please charge any deficiency or credit any overpayment to Deposit Account No. 50-1619. This form is submitted in duplicate.

() The relevance of the listed references in a foreign language is as stated in the specification at pages @@.

(XX) All listed references are in the English language.

Respectfully submitted,

Jane Massey Licata

Jane Massey Licata
Registration No. 32,257

Date: November 19, 2001

Licata & Tyrrell P.C.
66 E. Main Street
Marlton, New Jersey 08053

(856) 810-1515

Form PTO-1449 Modified

List of Patents and Publications
Cited by Applicant
(Use several sheets if necessary)

U.S. Department of Commerce
Patent and Trademark Office

Docket No.
ISPH-0618

Serial No.
Not Yet Assigned

Applicant
Karras et al.

Filing Date
Herewith

Group
Not Yet Assigned

U. S. PATENT DOCUMENTS

Examiner		Document	Date	Name	Class	Subclass

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation YES NO	
	AA	WO 00/77204 A1	21-12-00	PCT	x	

EXAMINER**DATE CONSIDERED**

Form PTO-1449 Modified List of Patents and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce	Docket No. ISPH-0618	Serial No. Not Yet Assigned
	Applicant Karras et al.	
	Filing Date Herewith	Group Not Yet Assigned

U.S. PAT. & TM. OFF.
10/001863
11/19/01

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AA	Cario et al., "Differential Alteration in Intestinal Epithelial Cell Expression of Toll-Like Receptor 3(TLR3) and TLR4 in Inflammatory Bowel Disease", <i>Infection and Immunity</i> 2000 7010-7017
AB	Faure et al., "Bacterial Lipopolysaccharide and IFN- γ Induce Toll-Like Receptor 2 and Toll-Like Receptor 4 Expression in Human Endothelial Cells:Role of NF- κ B Activation", <i>The Journal of Immunology</i> 2001 166:2018-2024
AC	Frantz et al., "Toll4 (TLR4) expression in cardiac myocytes in normal and failing myocardium", <i>The Journal of Clinical Investigation</i> 1999 104(3):271-280
AD	Means et al., "Structure and function of Toll-like receptor proteins", <i>Life Sciences</i> 2000 241-258
AE	Medzhitov et al., "A human homologue of the Drosophila Toll protein signals activation of adaptive immunity", <i>Nature</i> 1997 388:394-397
AF	Muzio et al., "Differential Expression and Regulation of Toll-Like Receptors (TLR) in Human Leukocytes:Selective Expression of TLR3 in Dendritic Cells", <i>The Journal of Immunology</i> 2000 5998-6004
AG	Rehli et al., "PU.1 and interferon Consensus Sequence-binding Protein Regulate the Myeloid Expression of the Human Toll-like Receptor 4 Gene", <i>J. Biol. Chem.</i> 2000 275(13):9773-9781
AH	Rock et al., "A family of human receptors structurally related to Drosophila Toll", <i>Proc. Natl. Acad. Sci. USA</i> 1998 95:588-593
AI	Schuster et al., "Toll receptors:an expanding role in our understanding of human disease", <i>Journal of Leukocyte Biology</i> 2000 26:767-773

EXAMINER	DATE CONSIDERED
-----------------	------------------------

Form PTO-1449 Modified List of Patents and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce		Docket No. ISPH-0618	Serial No. Not Yet Assigned
		Applicant Karras et al.	
		Filing Date Herewith	Group Not Yet Assigned
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AJ	Sieling et al., "Proceedings of a Nobel Symposium on Tuberculosis - Activation of Toll-like Receptors by Microbial Lipoproteins" <i>Scand J. Infect Dis.</i> 2001 33:97-100	
EXAMINER		DATE CONSIDERED	